

## Amendments to the Claims

1. (Currently amended) A variable picture rate decoding apparatus for reproducing a moving picture from an incoming bit stream coded by inter-picture predictive coding including bidirectional prediction, ~~characterized by~~ comprising:

picture rate setting means for getting Information about a frame pixel number of the ~~previously-mentioned~~ incoming bit stream, and setting a decoding picture rate of a moving picture at which decoding real time is possible from a relation between the ~~previously-mentioned~~ frame pixel number and a decoding processing capability of the present decoding apparatus;

decoding means for causing at least a portion of bidirectional inter-picture prediction pictures in the ~~previously-mentioned~~ incoming bit stream to be not decoded, and performing decoding of the ~~previously-mentioned~~ incoming bit stream at the ~~previously-mentioned~~ coding decoding picture rate set by the picture rate setting means to get decoded pictures; and

interpolating means for interpolating a picture of the ~~previously-mentioned~~ decoded pictures to get a reproduced picture at a prescribed picture rate.

2. (Currently amended) A variable picture rate decoding apparatus for reproducing a moving picture from an incoming bit stream coded by inter-picture predictive coding including bidirectional prediction, ~~characterized by~~ comprising:

decoding controlling means for getting information about a frame pixel number of the ~~previously-mentioned~~ incoming bit stream, and setting a decoding method not decoding all bidirectional inter-picture prediction pictures in the ~~previously-mentioned~~ incoming bit stream in cases where decoding of bidirectional inter-picture prediction pictures in the ~~previously-mentioned~~ incoming bit stream can not be done due to a shortage of a capacity of a frame memory for decoding from a relation between the ~~previously-mentioned~~ frame pixel number and a the capacity of a the frame memory for decoding ~~which will be mentioned later~~;

decoding means for decoding the incoming bit stream in accordance with the ~~previously-mentioned~~ decoding method to get decoded pictures; and

a frame memory for decoding which uses a memory corresponding to 4 frames when bidirectional prediction is done as a memory corresponding to two frames double in pixel number in cases where bidirectional prediction is not done in accordance with the ~~previously-mentioned~~ decoding method, and getting a prescribed reproduced picture from the ~~previously-mentioned~~ decoded pictures.

3. (Currently amended) A variable picture rate decoding method of reproducing a moving picture from an incoming bit stream coded by inter-picture predictive coding including bidirectional prediction, ~~characterized by~~ comprising the steps of:

getting information about a frame pixel number of the ~~previously-mentioned~~ incoming bit stream, and setting a decoding picture rate of a moving picture at which decoding in real time is possible from a relation between the ~~previously-mentioned~~ frame pixel number and a decoding processing capability of a decoding apparatus;

causing at least a portion of bidirectional inter-picture prediction pictures in the ~~previously-mentioned~~ incoming bit stream to be not decoded, and performing decoding of the ~~previously-mentioned~~ incoming bit stream at the ~~previously-mentioned set coding set~~ decoding picture rate to get decoded pictures; and

interpolating a picture of the ~~previously-mentioned-gotten~~ decoded pictures to get a reproduced picture at a prescribed picture rate.

4. (Currently amended) A variable picture rate decoding method of reproducing a moving picture from an incoming bit stream coded by inter-picture predictive coding including bidirectional prediction, ~~characterized by~~ comprising the steps of:

getting information about a frame pixel number of the ~~previously-mentioned~~ incoming bit stream, and setting a decoding method not decoding all bidirectional inter-picture prediction pictures in the ~~previously-mentioned~~ incoming bit stream in cases where decoding of bidirectional inter-picture prediction pictures in the ~~previously-mentioned~~ incoming bit stream can not be done due to a shortage of a capacity of a frame memory

for decoding from a relation between the ~~previously-mentioned~~ frame pixel number and a the capacity of a the frame memory for decoding ~~which will be mentioned later~~;

decoding the incoming bit stream in accordance with the ~~previously-mentioned~~ decoding method to get decoded pictures; and

getting a prescribed reproduced picture from the ~~previously-mentioned-gotten~~ decoded pictures by a frame memory for decoding which uses a memory corresponding to 4 frames when bidirectional prediction is done as a memory corresponding to two frames double in pixel number in cases where bidirectional prediction is not done in accordance with the ~~previously-mentioned~~ decoding method.

5. (New) An apparatus for decoding a picture signal at a variable picture rate, comprising:

first means for getting information indicating the number of pixels composing every frame represented by an input signal indicative of a sequence of pictures including bidirectionally predictive coded pictures;

second means for setting a decoding picture rate in response to a predetermined decoding capability and the number of pixels which is indicated by the information gotten by the first means;

third means for discarding a part of the input signal which is indicative of at least one among the bidirectionally predictive coded pictures in response to the decoding picture rate set by the second means, and getting a non-discarded part of the input signal;

fourth means for decoding the non-discarded part of the input signal into a first decoding-resultant signal at a decoding picture rate equal to the decoding picture rate set by the second means; and

fifth means for interpolating a decoding-resultant signal portion corresponding to the discarded part of the input signal in response to the first decoding-resultant signal, and combining the interpolated decoding-resultant signal portion and the first decoding-resultant signal into a second decoding-resultant signal.

6. (New) An apparatus for decoding a picture signal at a variable picture rate, comprising:

first means for getting information indicating the number of pixels composing every frame represented by an input signal indicative of a sequence of pictures including bidirectionally predictive coded pictures;

a frame memory having a preset capacity;

second means for deciding whether or not first portions of the input signal which represent the bidirectionally predictive coded pictures respectively can be decoded on the basis of the preset capacity of the frame memory and the pixel number indicated by the information gotten by the first means;

third means for, in cases where the second means decides that the first portions of the input signal which represent the bidirectionally predictive coded pictures respectively can be decoded, decoding a whole of the input signal while using the frame memory as a memory having a capacity corresponding to four frames each composed of a first number of pixels; and

fourth means for, in cases where the second means decides that the first portions of the input signal which represent the bidirectionally predictive coded pictures respectively can not be decoded, decoding only second portions of the input signal which differ from the first portions thereof while using the frame memory as a memory having a capacity corresponding to two frames each composed of a second number of pixels, the second number being equal to twice the first number.

7. (New) An apparatus for decoding an input signal representing a sequence of pictures each composed of pixels, the number of which is changeable, the pictures including unidirectionally predictive coded pictures and bidirectionally predictive coded pictures, the apparatus comprising:

first means for deciding whether or not the number of pixels composing every picture represented by the input signal exceeds a prescribed reference value;

second means for, in cases where the first means decides that the number of pixels does not exceed the prescribed reference value, decoding a whole of the input signal into

a first decoding-resultant signal in response to forward prediction reference pictures and backward prediction reference pictures;

third means for, in cases where the first means decides that the number of pixels exceeds the prescribed reference value, decoding only portions of the input signal which represent pictures except the bidirectionally predictive coded pictures into a second decoding-resultant signal in response to unidirectional prediction reference pictures;

a first frame memory having first and second areas; and

a second frame memory having first and second areas;

wherein the first area of the first frame memory is operative for, in cases where the first means decides that the number of pixels does not exceed the prescribed reference value, storing a 1-picture corresponding portion of the first decoding-resultant signal, wherein the second area of the first frame memory is operative for, in cases where the first means decides that the number of pixels does not exceed the prescribed reference value, storing a portion of the first decoding-resultant signal which represents a bidirectionally predictive coded picture and outputting said stored portion of the first decoding-resultant signal, wherein the first area of the second frame memory is operative for, in cases where the first means decides that the number of pixels does not exceed the prescribed reference value, storing a portion of the first decoding-resultant signal which represents one of the forward prediction reference pictures and outputting said stored portion of the first decoding-resultant signal, and wherein the second area of the second frame memory is operative for, in cases where the first means decides that the number of pixels does not exceed the prescribed reference value, storing a portion of the first decoding-resultant signal which represents one of the backward prediction reference pictures and outputting said stored portion of the first decoding-resultant signal; and

wherein the first and second areas of the first frame memory are operative for, in cases where the first means decides that the number of pixels exceeds the prescribed reference value, storing a 1-picture corresponding portion of the second decoding-resultant signal, and wherein the first and second areas of the second frame memory are operative for, in cases where the first means decides that the number of pixels exceeds the prescribed reference value, storing a portion of the second decoding-resultant signal which

represents one of the unidirectional prediction reference pictures and outputting said stored portion of the second decoding-resultant signal.